THE FIRST THREE PROFESSORS OF SURGERY

by

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THE Roman orator and philosopher Marcus Tullius Cicero wrote in 75 B.C. that not to know what happened before you were born is always to remain a child. It is true that there are present tonight relations of each of the three men about whom I am to speak and also others who know something of their lives and work either by tradition or personal encounter, but 'old men forget and all shall be forgot', and it therefore behoves us to set down on paper what we know about our predecessors before it is too late.

The surgical school in Belfast has always had a high reputation, much of which is based on the work of three great men, the first three professors of surgery. They were the pillars but each was an interesting personality and as they gave so much to the school I feel that a short note on each might be of interest.

TABLE I

The Professor of Surgery: Queen's College and University

1847 Inst.			
1849	1849 B. 1818 (31) 37 years 1886 Age 69 D. 1887	Prof. Alex Gordon, MD, ED, LRCS ED. "Old Alick", "Jasus"	1. Irish Famine 2. Crimea 3. Anaesthesia 4. Fractures (No Radiology
1909 Queens University	1886 B. 1858 (28) 37 years 1923 Age 82 D. 1940	Prof. Thomas Sinclair, CB, MD, MCh, FRCS, MP "Tommy"	Antiseptic Surgery Pathology Abdominal Surgery Two Wars
	1923 B. 1868 (55) 10 years 1933 Age 66 D. 1934	Prof. Andrew Fullerton, CB, CMG, MD, MCh, FRCSI, FACS "Andy"	Urology War, Surgery Blood Transfusion ±
	1933 B. 1880 (53) 14 years 1947 Age 90 D. 1970	Prof. P.T. Crymble, MB, FRCS Eng. "P.T."	Anatomy Radiology Abdominal Surgery Antibiotics
	1947 B. 1907 (40) 26 years 1973 Nigeria	Prof. H.W. Rodgers, OBE, FRCS Eng. "Stuffy"	Surgical Research Blood Chemistry
	1973 B. 1925 (48)	Prof. Douglas Roy, MD, MCh, FRCS Eng. FRCS ED, FRCS Glas.	Surgical Research Tropical Diseases

To make the picture complete it is worth mentioning that since Queen's was opened in 1849 it has had in all six professors of surgery. Table I gives in a tabulated form their length of service, the situation and status of the Belfast School when they were in office, as well as the main interests of each individual man. The thin line half way through Professor Crymble's term of office indicates when the Chair became a full time appointment with the salary changing from £1,200 per annum to £1,500. The thick line in 1947 not only is the date of the arrival of Professor Rodgers but it is also the date when a real Department of Surgery was founded with full research facilities—laboratories, animal rooms etc.

Before Professor Gordon was appointed the first professor of surgery in Queen's there had been some teachers who had been given the title of Professor. In the fourteen years from 1835, while the Medical School was at Inst. there had been three professors of surgery. The first was appointed in 1835; he was John McDonnell, son of the great James McDonnell, who later went off to Dublin. He was succeeded by Dr. Thomas Ferrar who in fact never took up the appointment but went off to Sligo. His successor was Dr. Robert Coffey who was appointed early in 1837 and would appear to have given ten years of most excellent service; it was on his death that Professor Alexander Gordon was appointed.

The Irish Medical Schools

As some people may be as much confused as I am myself about the origin of the various medical schools in Ireland I may be excused if again in tabular form in Table II I put down the origin of the early schools and the changes and evolution that took place before our own Queen's University of Belfast became an independent university. Although Trinity College, Dublin is shown by its charter to have been

Table II

SCHOOLS OF MEDICINE IN IRELAND

1592	Trinity College Dublin School of Physic			
1654	King's College suggested, never functioned			
1784	Royal College of Surgeons Ireland			
1791	Apothecaries Hall—ceased 1972			
1845	Enacted	Queen's Colleges	Belfast	Queen's University of Ireland
1850	Established		Cork	
1879	Ceased		Galway	
1879	Established	Colleges	Belfast	Royal University of Ireland
1908	Ceased		Cork	
			Galway	
1908	Established	Queen's University of Belfast		
		University Colleges of	Dublin	National University of Ireland
			Cork	
			Galway	

founded in 1592 when Henry Ussher requested Her Majesty Queen Elizabeth I "to give her assent to the foundation of a college which would give a blessing on to the whole realm and would plant religion, civilitie and true obedience in the hearts of this people"—at times like the present we wonder if this succeeded. It was not, however, until 1711 that the main medical buildings were built although Dr. John Stearne, who had been appointed as Public Professor of Medicine, had already been giving his lectures from 1654. It should be remembered that Trinity College Dublin Medical School is always described as a "School of Physic". I suppose the Barbers filled in this gap which was later taken over by the surgeons. In 1654 a King's College for all Ireland was suggested but it never functioned. In 1784 by Royal Charter the Royal College of Surgeons in Ireland was founded and it has flourished ever since. It was thought to have been suggested for two reasons; firstly with the imminence of the Napoleonic wars it was felt that further and urgent surgical education was necessary and this although naturally more needed for the welfare of England yet could be given in Ireland. A second reason for the origin of the Royal College of Surgeons in Ireland was that Trinity was still a school of Physic and the surgeons were able to give a more balanced education. In 1791 the Apothecaries Hall was founded. It led a chequered career with at times a doubtful reputation until it finally closed down two years ago mostly through pressure from the General Medical Council.

Coming up to modern times we find that an act of Parliament in 1845 established Queen's Colleges in Belfast, Cork and Galway; Dublin was excluded. They became constituent colleges of the Queen's University in Ireland in 1850 (Figure 1). This new body had a short life of thirty years as it ceased to exist in 1879, it was succeeded by The Royal University of Ireland, an examining body with no constituent colleges. This new university also had a short life of 29 years until 1908. Most of its examinations were held in Dublin which was in many ways inconvenient. It was said that "the parents did not like their sons at this most critical period of their lives to go far from home and be exposed to the damnations of a large city without proper oversight". There is a very different outlook in the world today. The link up of these three colleges never had been a very happy marriage so in 1908 the Royal University of Ireland ceased to exist and the new National University of Ireland came into being, with colleges in Dublin, Galway and Cork and at the same time the Belfast College now was given the status of a university proper as the Queen's University of Belfast. The Government of the Republic has a plan for the creation of a new university of Dublin embracing Trinity College and University College, Dublin and new universities in Cork and Galway.

When the Royal Belfast Academical Institution (Inst.) was founded in 1810 it was primarily intended to have a collegiate and school department. There are many people who do not realise the extent of the medical school in Inst. before the opening of the Queen's College in 1849. For fourteen years a full medical training had taken place at Inst., and during those years some 600 students had been trained with on occasions as many as 70 students in one year. There were seven professors doing full duty when the change took place. One of these, Professor Drummond, had reached the age of retirement, three of the others were

not re-appointed and went into retirement with the help of a golden handshake of £350. One of these was the famous Dr. Henry MacCormac, the other three professors, all men of exceptional ability, moved up to the new college. They were Professor Thomas Andrews, F.R.S., the Professor of Chemistry, Professor Burden, Professor of Midwifery and Gynaecology, the pioneer of that speciality in Belfast, and Professor Alex. Gordon, Professor of Surgery. The golden handshake in today's currency may not sound a great deal but we must remember that a professor's annual salary was only £50 per year.

Inst. did all it could to retain the medical school; it bought a disused building on the north side to be a hospital so that the practical and clinical work for the students could all be carried out on the same campus. This did not succeed. In the latter part of the fourteen years it was clear following a Government investigation that the writing was on the wall. The Presbyterian Church was withdrawing its students and this reduced the value of the institution for collegiate instruction. Physical defects were found in the fabric of the building itself and it was pointed out that as it had been built on swampy ground it was sinking. In fact in the centre it had sunk to the extent of one foot with perhaps six inches or so near the perimeter. This defect was pointed out by Sir Charles Lanyon, the leading architect of that time, but it must be remembered that he was later chosen as the architect of the new Queen's College which, he had been instructed, had to be built on higher ground. We hope that there was no wishful thinking in his criticism. With the disappearance of the Arts, Medical and Divinity Schools Inst. lost for ever its collegiate status and became a secondary school, achieving a position in the first rank of Irish schools which it has retained ever since.

On the opening of the new college all classes moved up to the Malone Road but although an anatomy lecture room was provided for there was no dissecting room and students had to dissect at Inst. for another eighteen years until an anatomy department was built. During that time Queen's had to pay the Inst. Board of Management £25 annual rental. It was a great nuisance for the students who had to waste about one hour per day going from Queen's to Inst. and back.

Professor Gordon

When Alex. Gordon was appointed to the Chair of Surgery in Inst. in 1847 he was a young man of 31 years of age (Figure 2). He succeeded Professor Coffey whose portrait and an illuminated address given to him by his students are in the Department of Surgery. In his reply to this address he says he is indeed very honoured and mentions that this is the sixth illuminated address that he has had, so presumably he must have been considered to be a very good teacher. Alex. Gordon was the son of Dr. Gordon of Saintfield; he had a younger brother who later became a general medical practitioner in that town and succeeded his father there (Figure 3). Professor Gordon himself had been a prize winner as a student. We see that in 1838 he had won class prizes—one was on "the osteology of the human cranium and its variations in different nations and different individuals". He also won a chemistry prize when his subject was "The Changes produced in the air and blood during respiration". In 1845–1846 we find he was a demonstrator

FIG. 1. *The crest of the old Queen's College which existed for 29 years only.*

FIG. 2. *Professor Gordon—a young man at the time of his appointment.*

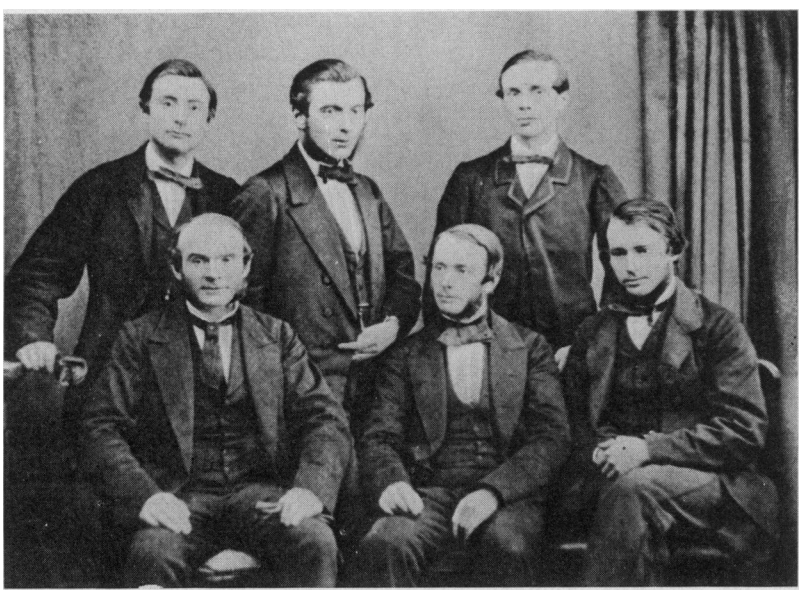

FIG. 3. *Professor Gordon and his brothers. Left to right in back row: Craigie, Dr. Williams and John, and front row: Rev. David, Professor Alexander Gordon and Robert Wilson.*

in anatomy; he there made a great reputation for himself as a teacher and it was from that post that he was elected Professor of Surgery. Although he took some of his undergraduate classes in Belfast he actually qualified in Edinburgh obtaining the degrees of the University and the licence of the Royal College of Surgeons of Edinburgh in 1841.

On returning to Belfast he took up practice at once. In those days the most convenient consulting area was near Inst. His first address was Upper Arthur Street, later he moved to 2 College Square North almost next door to the house which was later occupied by William Whitla when he qualified in 1877. Finally Professor Gordon moved to 1 Howard Street where he practised until he retired. His successor Professor Sinclair moved into this house and lived there for a time and later when he moved to University Square he still retained the Howard Street consulting rooms. It is easy to see why Sir William Whitla was to choose College Square North for the Medical Institute that he built for The Ulster Medical Society as it had long been a medical focal point. It also had an easy approach to the General Hospital in Frederick Street and the Childrens' Hospital in Fisherwick Place as well as the railway terminus. We can now see with the college moving later to Malone Road, and also with the building of the new Royal Victoria Hospital, that it was natural that those people of Harley Street status should move up to University Square, College Gardens and neighbourhood—the centre of gravity had changed to the new Queen's area.

In judging a man's ability we must relate him to the time in which he was living and the medical facilities and advances then available. The Irish famine was still in progress and the Crimean war had not yet taken place when Gordon was appointed professor. This war was useless from a military angle but it did perhaps give a start to modern British nursing and it gave the new invention of anaesthesia a successful field trial under difficult conditions. In this respect the French got much more benefit from it than the English. It also showed that plaster-of-Paris even in a crude form was an excellent splint; the Russians used it over thick woollen stockings. Of course Pasteur and Lister were still twenty years away. This was the world into which Alex. Gordon entered as a young professor at the age of 31. He had a first class knowledge of anatomy and also an inventive and creative type of mind, and so he enjoyed the challenge presented by the many fractures he encountered in his practice. He made many ingenious devices and his splint, the Gordon splint, for fractures in the region of the wrist, soon had an international reputation (Figure 4). Without x-ray control the idea then naturally was to make the fracture fit the splint—today with careful radiography of the bones we make the splint to suit the fracture. Splints—named after the inventor—hardly exist today, the light plaster-of-Paris splint has replaced them nearly all. Many people invented their own splint and as a student even in my day a question in the final examination always was to name splints and bandages! Gordon's splint had a great reputation for many years yet I remember well Professor Fullerton pointing out to me all its faults and carefully explaining to me that the only way to avoid them was to use the Fullerton splint.

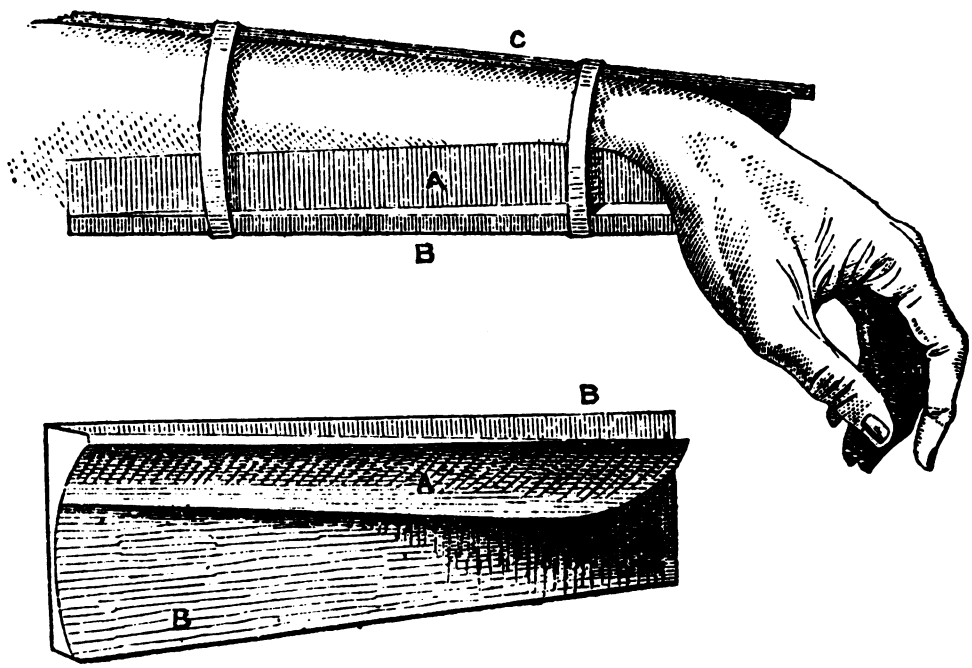

FIG. 4. *The Gordon splint for Colles' fracture.*

Gordon was no ordinary man. He is not easy to describe as in many ways he was a contradiction in himself. He was careless yet painstaking. He was amiability itself yet could be vindictive to a degree. While totally careless of his own person he would give meticulous attention to those under his care. His brusque manner and blunt speech concealed a rare kindliness of heart. He had no graces of oratory and sadly was not adept with the pen. His teaching was simple, thorough and entirely practical. He hated trappings and outward show and was oblivious of worldly honours. He was one of those men who was so brilliant that he could afford to be eccentric. Students as a rule always like something out of the ordinary; the nickname of "old Alick" given to him by his students was a term of endearment. His other nickname was "Jasus" given by his less reverent students. It is said that on one occasion a rough farmer having a deep and painful abscess opened used this expletive as the knife went in; Gordon at once reprimanded him and said "It is only the students that are allowed to call me that". Notwithstanding all this he had a large practice extending to distant parts of Ulster. As a surgeon he was neither dashing nor brilliant but his patients did well. It was always said that he never made much money. It was also said that his fees indicated his humility rather than his merit. He left behind quite a modest sum when he died. As a consultant he was most obliging and always ready to help his colleagues, but sometimes his doctor friends wished that he was a little more polite and presentable. The story is often repeated of how he was asked to see one of Belfast's notabilities of that time. The

family doctor, Dr. Purdon, called to convey Professor Gordon who appeared at once in his famous old tweed hat. Dr. Purdon suggested that as the patient was a man of such importance perhaps Professor Gordon could put on a better hat, perhaps even a top hat. Gordon went inside at once, closed the door, and sent out a top hat on a tray by his manservant with a note which said "I see it is the hat you want and not the man". He could when provoked have a fiery temper and his language to the students on such occasions was far from parliamentary. He could swear like a trooper but once his temper had settled he would end up pathetically by saying "Gentlemen, if you only listened you might commence the practice of medicine where I am leaving off". He treated all patients alike. On one occasion he was asked to go to Clandeboye to see a member of the Dufferin and Ava family on a Saturday afternoon; he said he was too busy cleaning out the byre to go but would hope to find time some time later.

He was an indefatigable worker and an enthusiastic teacher. Right to the end it was said that each day he would spend one hour in the anatomy department before giving his surgery lecture. He is remembered most of all for his success in the treatment of fractures. Sir William Whitla in his usual flowery language said of Gordon "he transformed the treatment of fractures from being a stagnant pool into being a clear crystal spring". His published works were, alas, too few, but he left behind an unrivalled collection of mounted specimens showing healed fractures of almost every bone. These are preserved in the anatomy department of Queen's today.

When the British Medical Association held its first annual meeting in Belfast in 1884 his demonstration of fractures was the outstanding exhibit of the meeting. It is hard today to know how he obtained them. Whitla thought a great deal of him; in fact one edition of Whitla's Treatment of Medicine is dedicated to Professor Gordon. Whitla described him as "the most illustrious of Irish surgeons, a man of worldwide fame—an original genius—a man with an inventive creative mind". Whitla I am afraid was always willing to use hyperbole.

When Sir William Whitla generously donated the Ulster Medical Institute as a gift to the doctors of Ulster in 1902 he ornamented it on the outside with four carved heads. He selected the two whom he thought had done most for the school during the Inst. period—they were Professor Thomas Andrews, F.R.S. and Dr. Henry MacCormac. The other two were Professor Peter Redfern and Professor Gordon, whom he considered to be the most illustrious of those who were in the Medical Faculty when it moved to the Malone Road site. No one could disagree with his choice. It is hoped that these heads will be safely rescued from the old Whitla Institute to get a permanent place of honour in our new building.

I feel that like Hugh Owen Thomas of Liverpool, famous for the Thomas splint, Gordon could have been regarded as one of the early medically qualified bone setters, something that without x-ray control required a third sense. When he died someone said "he belonged to a past generation which we hope will never become extinct" so even 100 years ago he was an interesting eccentric character.

As I said his town house was at No. 1 Howard Street but he was a countryman at heart and finally as he grew older he felt he needed a weekend house to get away from it all. He decided that a house beyond Comber with fields running down to Strangford Lough would suit him and so he bought an old farm house called Ringneill (Figure 5). He had there a pleasant orchard of seven acres and kept some cattle. He also put a new front on this house copying the frontage of his house in Belfast. On one occasion he decided to build a wall by his own hands to keep the lough from flooding the fields. In this he made two mistakes; firstly he did not dig

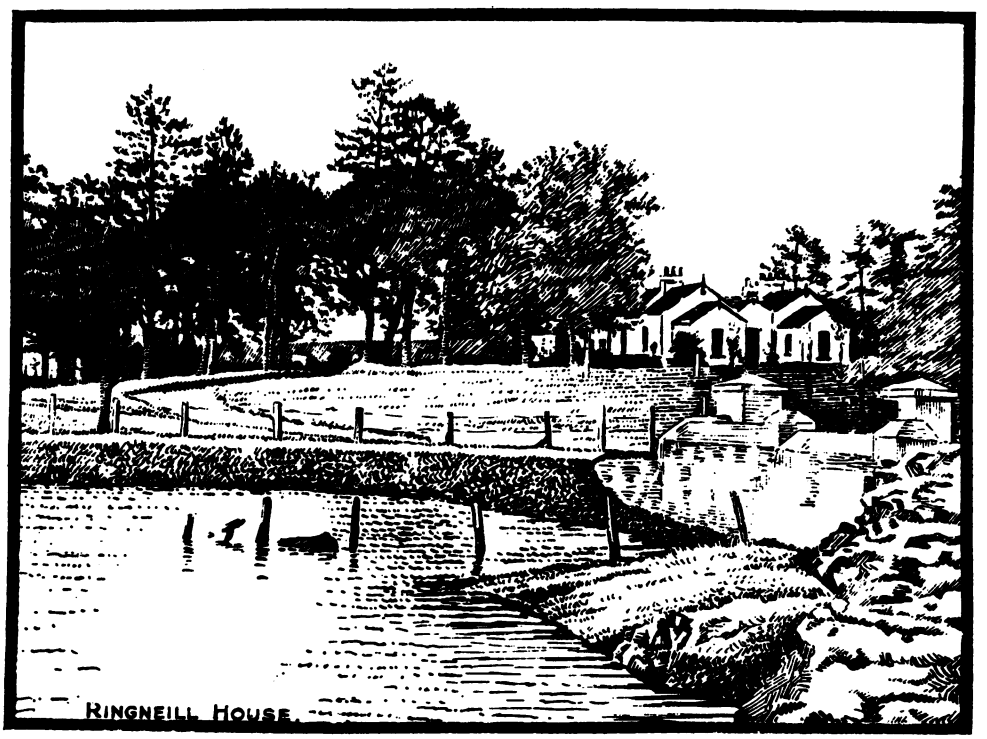

FIG. 5. *Ringneill, Comber.*

foundations—incredible for a man with some knowledge of engineering—but just built it on the surface of the field, and secondly and more serious still he built it on a Sunday. When it collapsed, as it did not long afterwards, there was great satisfaction among the Presbyterians in that area as it proved that any work done on the Sabbath was bound to fail.

Although a man highly successful in his professional life his home life was a disaster. He did not get on at all with his wife; there was constant friction. His son Alex. was a great disappointment, ran away from home, became a ne'erdowell and was missing for many years. His one solace was his daughter Winnie to whom he was greatly attached and on whom he had to depend greatly in his later years when

he lost his sight. His wife had died some years before. His only disagreement with Winnie was on the occasion when she wanted to marry a Mr. David Lowry; her father refused to allow this. One is not sure of the reason for this but one theory is that possibly David Lowry was held slightly responsible by Gordon for the young Alex's bad behaviour. However, Winnie did get married in 1893 to Dr. Harrison Stallard, M.R.C.P., London, and they emigrated to America.

I was fortunate in getting from the University of California San Francisco an interesting reference to Professor Harrison Stallard who was at that time Professor of Medicine in the Post Graduate Medical Department. He was very much older than Winnie and must have died round about 1895. In the history of the San Francisco Medical Society 1850–1900 the following report on him is worth quoting:

> "Dr. J. H. Stallard was another Englishman and it occurred to him to send home for a Hansom. It was a unique vehicle and resembled an upright coffin on trunnions. Instead of having a coachman perched high in the rear over the roof of the carriage it was driven by the doctor himself, the reins passing through a slit in the front of the coffin. When the doctor with his white flowing sidewhiskers, his black frock coat, his stove pipe hat, and his saucy lapdog sitting beside him, drove forth in his peculiar showcase he was one of the sights of the town."

Professor Gordon died intestate and his estate therefore went to his two children, but at that time Alex., his son, could not be found and Winnie became the sole legatee. On her husband's death she returned to Ulster and in her will she left Ringneill to her former lover, Mr. David Lowry, if her brother did not turn up within five years. If he did turn up after that time he was to be given an annuity of £1 per week for life. Many years later the young Alex. came back; he lived on a very small pittance near his old home—£1 per week from Mr. Lowry and one or two other small sums. He died in 1945 in the Ards District Hospital and is buried in the City Cemetery, Belfast although Professor Gordon is buried in the old churchyard in Saintfield. One retired lady living at Comber told me that she remembers well young Alex. then an old man with a beard like his father, and she said always with the appearance of being a gentleman, coming often, looking in to Ringneill from the side gate, standing there for a short time and then walking away, a very sad old man.

It is pleasing to think that Ringneill still has medical connections. The late Dr. Maitland Beath and his wife bought it in 1927 and Mrs. Beath spends still much time there each year enjoying the freedom of Co. Down.

One story that Professor Gordon used to enjoy telling about himself was that when at Comber he wore even more shabby clothes than usual, and on one occasion he began to talk to a man sitting on the roadside breaking stones. After a time the man said he had a very painful shoulder. Professor Gordon thereupon said he would like to have a look at it and gave him some advice. Some months later Professor Gordon on his way to Belfast well dressed for an important occasion stopped his gig and asked the old man how he was. The old man not recognising him said he was a great deal better thanks to an old tramp who had given him very good advice some months before.

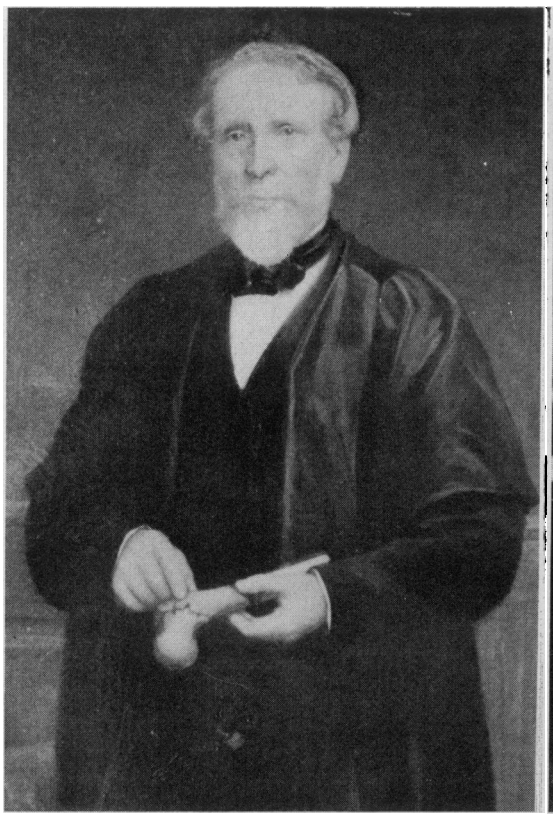

FIG. 6. *Professor Gordon—oil painting almost certainly from the photograph (figure 7).*

FIG. 7. *Professor Alexander Gordon—photograph*

There are two portraits full length oil paintings of Professor Gordon at the university (Figure 6). One of these, given by the students, shows the professor demonstrating a fracture through the neck of the femur and naturally beside him can be seen on the table an example of the famous Gordon splint. The other oil painting was given to the university in 1904 by his daughter Winnie, who called herself Mrs. Gordon Stallard. Winnie died that very same year at the age of 40 having been born in 1864. The second painting is not unlike the first one; this time he has some notes in his hand, and in fact I think both of these portraits were painted after his death from a photograph (Figure 7).

His family tree is an interesting one and shows what influence this family had in Ulster affairs (Figure 8). His father and brother were much respected doctors in Saintfield, another brother was a minister, and another brother somewhat mentally backward, it was said after a fall out of his pram. One often wonders in cases of this sort which came first, the mental retardation or the fall? Another brother John became an important linen merchant and was the father of Malcolm Gordon a man

who had great influence in the town in later years; in fact members of this family still play an important part in Ulster affairs. There were five sisters; they do not appear in the portrait with the six brothers. Of the five sisters one got married and was immediately disinherited, the others remained single—I do not suggest that there is any inference to be drawn from this!

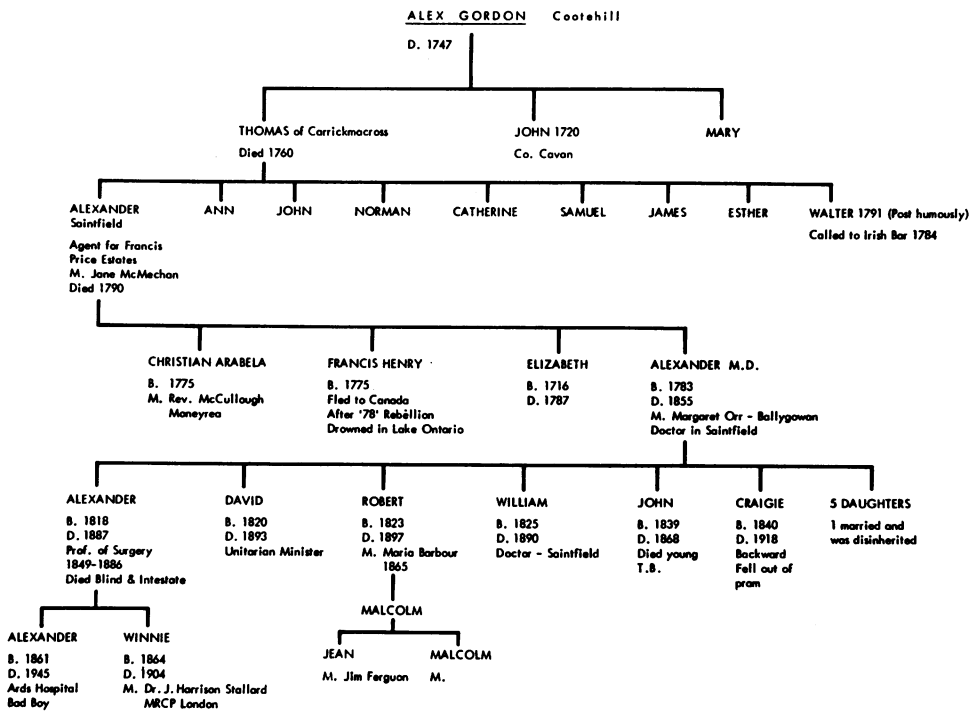

FIG. 8. *The Gordon family tree.*

Towards the end of his life he must have been a sad man; it is said that he threw his books into a pond in one of his fields and certainly none of them exist. Ringneill, a pleasantly situated and partially secluded house with its seven acres, was a very suitable house to be used on the famous night of the gun running in April 1914 when a consignment of arms for the U.V.F. arrived and suitable places had to be found where they could be hidden before being distributed. In 1914 gun running was looked on as almost an honourable pastime. The Public Records Office files show that Alexander Gordon was the occupier of Ringneill from 1866 and after his death, since his son was missing and his daughter was in America, it was let furnished to several different tenants. In 1907 the property came into the hands of the Lowry family. It will be remembered that David Lowry was one of Winnie's early suitors, and he lived there until 1923. He had a very well known ladies' outfitters in Belfast at that time. After 1923 there was a short interval of four years before it was bought by Dr. and Mrs. Maitland Beath.

At the age of 68 Professor Gordon with failing health and failing eyesight resigned from the Chair which he had held for 37 years. Sadly only a few months later, when staying in the old homested at Saintfield, one morning after breakfast he took a severe headache, developed a serious stroke, and fortunately did not survive. He died in the very same room in which he had been born 68 years before. The funeral at Saintfield was a very large one attended by his colleagues and students. He had been President of this society in 1856, and at the time of his death his younger brother William was in general practice in Saintfield. William himself died in 1890 at the age of 65. Their father who had started this practice died in 1856 at the age of 72.

It was Gordon's ardent wish that when he retired he should be succeeded by his favourite student, Thomas Sinclair. Supporting this was the most powerful man then in the Medical Faculty Peter Redfern, who had come to Queen's from Aberdeen in 1860 as Professor of Anatomy and Physiology.

Professor Thomas Sinclair

Thomas Sinclair was born in 1858. He was the eldest son of Samuel Sinclair a business man of some importance and one of a family much respected both in industry and for its charity. The family consisted of four sons and two daughters. Several of Thomas Sinclair's brothers took a prominent part in the affairs of Belfast and as can be seen from the family tree (Figure 17) the next generation produced politicians, professors and medical consultants, all of whom gave vital service to the province as well as to their country both in peace and war. Thomas himself was always thought to be delicate and so was educated privately before entering the medical school in Belfast in 1877. The medical curriculum covered four years in those days and throughout this period we find he was a prize winner, an exhibitioner and a gold medallist, and so it was no surprise when in 1881 he qualified M.D., M.Ch. with First Class Honours and a Gold Medal in the final examination in Dublin of the Royal University of Ireland (the M.D. and M.Ch. were still the primary qualifications).

At that time behind the scenes and virtually the 'eminence grise' of the medical school was Professor Redfern a man who it was said could always pick a winner. It was he who insisted that the young Sinclair should get the best surgical degree possible and that he should go to London, which he did, to work in the London Hospital, and from there to obtain the F.R.C.S. England. This he got in 1885; he was in fact the first in Belfast to have this diploma. Professor Redfern also insisted that he should go to Berlin and Vienna for further post-graduate study before coming back to settle in Belfast. In doing so Sinclair was a man well before his time.

This knowledge of pathology—there was not as yet a professor in this subject—gave his surgical lectures a scientific basis. Sinclair brought back with him the most modern ideas. Anaesthesia was now fully established, Pasteur and Lister had made surgery safe by the antiseptic carbolic spray, rubber gloves had just been invented in America made by the Goodyear Tyre Factory, modern surgery was

just being born and Sinclair was the right man to bring this new child to Ulster. He was not long back to Belfast and had already gathered a small practice, but was still an assistant surgeon in the Belfast Royal Hospital, when the Chair of Surgery became vacant with the resignation of Professor Gordon. Sinclair applied for the post and with the backing of Professor Redfern (Figure 9) was successful. This caused a regular bombshell as there were many more senior people who had expected to get it and it did not make the young professor's life an easy one for some time. He was then a young man of 28 years. John Walton Brown, later Sir John, was one of the disappointed applicants—he was then a very senior and very important person. Sinclair at that time was on the staff of the Belfast Royal Hospital in Frederick Street as well as The Ulster Hospital for Women and Children in Fisherwick Place. He soon had other appointments—at the Forster Green Hospital, Belfast and the Antrim Infirmary in Lisburn. In fact he soon had a

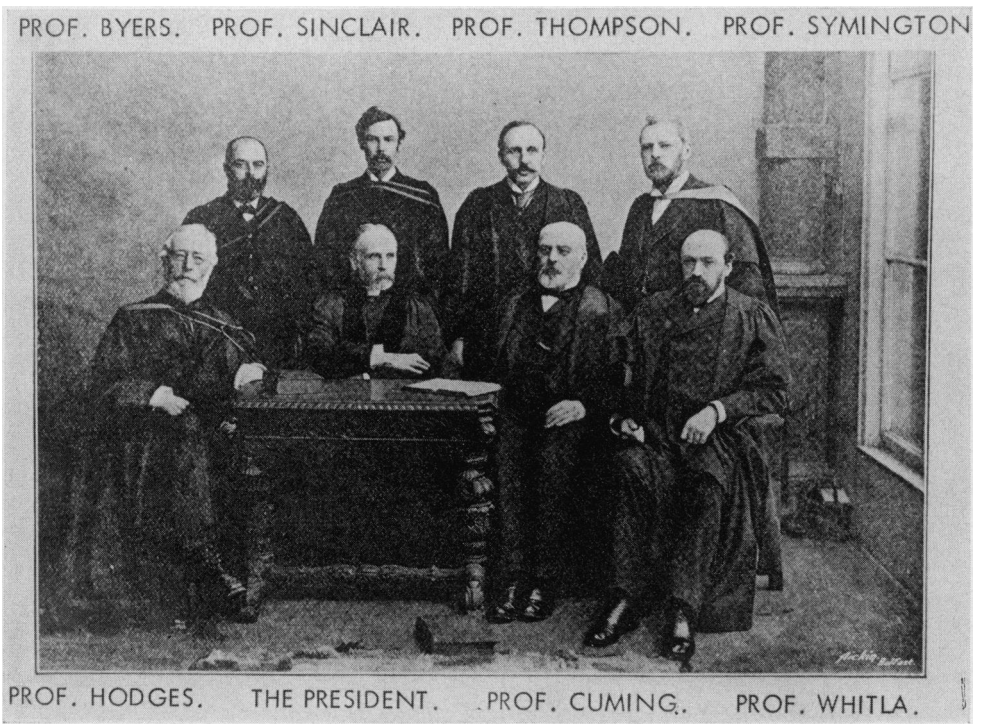

FIG. 9. *The Medical Faculty in* 1894.

loose attachment with most of the outlying hospitals, since many of these were staffed at that time by general practitioner surgeons glad to avail themselves of a second opinion from the professor. It was said of him that if he had not been the leading surgeon of his time he would have been the leading physician. I remember him saying one day in class that "a surgeon is a physician doomed to the knife" and occasionally looking at a patient he would say "I think this patient requires

a little tincture of steel in the surgical sense". Iron of course in that period was a very popular medical drug.

Appointed to the Chair in 1886 at the early age of 28 he held the post for 37 years—by a coincidence exactly the same length of time as his predecessor. No two men could have been more dissimilar (Figure 10). With Sinclair correctness

FIG. 10. *Professor Thomas Sinclair on appointment as professor.*

of dress, careful speech, politeness, good manners and tranquility were the outstanding features. He is said never to have lost his temper but there was a certain coldness and aloofness about him. When appointed he did resemble Gordon in that he had a flowing well trimmed black beard and a bow tie. This may have been the style of dress of that period.

As Gordon died very shortly after Sinclair was appointed he was able to take Gordon's house in No. 1 Howard Street and he lived there for many years before moving in 1900 to University Square, but even then he still retained Howard Street as his consulting rooms. In his early years, in fact from 1886–1914, he was a very busy man. His mornings were spent in hospital and each afternoon he gave his lectures at Queen's as well as having a very busy consultant practice. It was always said that he had the reputation of charging large fees. Many of the operations that he did were done for the first time in Belfast. He did the first short circuit for duodenal ulcer in Belfast and for fear the new opening would close he inserted some bone plates to keep the passage open—an idea that was very soon discarded.

When the British Medical Association paid its second visit to Belfast in 1909 Professor Sinclair was president of the surgical section, and he pointed out that in the operating theatres in the Royal Victoria Hospital each morning there were at least three short circuit operations being performed. Today this operation without the present modifications is very rarely performed.

It is sad that with such a vast experience of over 37 years he wrote very little, and one would have thought that a man who liked speaking would have enjoyed writing. It is perhaps just as well for he was such a master of detail that often the main subject might be missed or forgotten. In a hospital alphabet dealing with members of the staff of the Frederick Street Hospital in the 1890's and written by R. J. Johnstone, later Sir Robert, it is said "S is for Sinclair professor profound, if you give him the chance he will talk the day round". He remained a bachelor living in great comfort and cosetted by his unmarried sister Nell. I often wondered whether the alleged ill health was really true when it is realised that he hunted with the hounds each Saturday during the hunting season. He was a skilful fisherman and enjoyed this sport very much; he played an adequate game of golf, perhaps slightly sub-standard, but probably skating was the sport that he enjoyed most. It was said that on one occasion with the sudden onset of a hard frost he cancelled his lectures at hospital—perhaps giving the general impression that a sudden operation of importance had arisen requiring his services; however, there was no recrimination on either side when he found when he reached the lake that most of his class were already skating there long before he arrived.

He took a great interest in the university and in fact at some point or another he had been president of almost all the student societies. He was a member of the Academic Council and a member of the Senate and in 1919 was Registrar of the university. This close attachment to Queen's meant that as soon as he retired from the Chair in 1923 he was at once appointed Pro-Chancellor. He also became a member of Parliament representing the university at Westminster. He held this post for seventeen years in succession to Sir William Whitla and during those

seventeen years there were five elections and he was returned unopposed on each occasion. During the same period he was also a member of the Senate at Stormont. Notwithstanding his alleged ill health he offered his medical services in 1914 to the Army Medical Service and was commissioned with the rank of full Colonel as consulting surgeon to the 4th Army in France (Figure 11), which was then commanded at that time by Sir Henry, later Lord, Rawlinson.

Last year in the hairdressers I picked up the usual two year old magazine, a copy of Time. In it was a long detailed article on the life and death of the famous German Air Ace Baron Manfred von Richthofen (Figure 12) whose death created quite a stir and a bitter controversy. The Germans said that he had made a forced

FIG. 11. *Col. Sinclair and niece.*

FIG. 12. *Baron von Richthofen—the German air ace.*

landing behind the British lines and had been machine-gunned as he sat in the cockpit of his plane. Other views were that he had been killed in aerial combat, and there was even a suggestion that from jealousy he had been shot by members of his own air circus. In this article the writer finished by saying that the answer will never be known. In actual fact Colonel Sinclair was the one called in to do the important post-mortem examination, and was able from this to prove conclusively that the famous airman had been shot in the air in aerial combat. He often told us this story during his hospital ward rounds.

For his service in France he was appointed in 1917 a Companion of the Order of the Bath and was mentioned in despatches. Apparently during his time in the army he developed social qualities which many people did not think he possessed. Later in the war he went as consulting surgeon to Egypt as advisor to General Allenby. He must have enjoyed his army life and he was always very pleased afterwards to be addressed as Colonel Sinclair. This retaining of the war time temporary army rank seems to have been much more prevalent after the 1914–1918 war than after World War II. Andrew Fullerton also liked to be known as Colonel Fullerton.

One physical alteration that the war made for Professor Sinclair was the removal of his flowing black beard which had to go when 'he first put this uniform on'. I was a student in his class in his last year just before he retired. His classes were well attended, I am afraid mostly because he was the professor and also an examiner and we were likely to meet him later in other places. His lectures were too diffuse—there was not enough meat in them to help us to pass our final examinations. We preferred the younger men like S. T. Irwin who gave the information in tabloid form. Even Professor Lindsay with his list of 27 causes of vomiting or his 33 causes of headache at least gave us material which would fill an examination paper.

I thought in appearance at that stage that Professor Sinclair was the perfect prototype of a professor—somewhat different perhaps from today's models (Figure 13). He was cultured in speech and immaculately dressed with a dark suit, white shirt, stiff collar, stiff cuffs with gold cuff links and grey tie with pearl tiepin; he appeared just ready for a garden party or for Ascot. There was a white inset to the waistcoat and across his waistcoat there was his watch chain with a gold revolving signet that he could play with—which he did. He kept it spinning round all the time that he was lecturing which at times was somewhat offputting. He was then cleanshaven with his white hair neatly trimmed with a gentle wave in it. He had a pale somewhat grey face and certainly looked frail. He walked with a slow dignified air, but having said all this we must remember that he lived another seventeen busy years after his retirement. He did not operate much in his last few years on the hospital staff but left most of this to his No. 2 S. T. Irwin, later Sir Samuel. As with many others that we can think of the No. 2 has often been left to do most of the work.

I always felt the Professor enjoyed best looking back to the surgery of the past although this was not necessary as he kept himself well abreast of all modern advances. I suppose many of us as we get older think the past more exciting than the present. Before an operation he sat down with his eyes closed for a few minutes —whether this was to revise his anatomy or to make a short prayer is uncertain; he was a religious man attending fairly regularly his church in Rosemary Street. Another suggestion was that he was having a rest before the ordeal of the operation. It was said that he was very weary after an operating session, in fact he often sat when operating when such was possible. What he did was done with meticulous care for detail. His work always had logical background and with his knowledge of anatomy and pathology he was able to tackle most problems with confidence.

As he always looked solemn I never knew if and when he was joking. He used to say the word "abdomen" comes from the latin "Abdo—I hide"—which even I knew it did not. He would then say "Gentlemen, you never can be sure what is hidden inside that box". As he bridged the pre-and-post x-ray period of 1895 he used to describe how to diagnose a stone in the bladder when cystoscopy and x-rays were not yet available. One had to pass a hollow metal sound into the bladder and when the tip touched the stone it produced a metallic bell like ring. He used to remind us that if this instrument were to touch our own gold cuff links (not that we had any) a similar sound might be produced and this might mislead us! This was just a reminder that in the old days the surgeons did not even roll up their sleeves before carrying out this interesting manoeuvre. I do suppose they did have a slight social hand wash first of all. These stories all told with great solemnity were very interesting but it was the junior surgeons who supplied us with the necessary material to help us to pass the final examination. On another occasion I remember the professor asked me what material I would use to sew up a wound in the face to leave the least visible mark. I knew the answer he wanted was horse hair—naturally this was long before our modern fine nylon was invented. The next

FIG. 14. *Professor Sinclair—portrait at Queen's.*

FIG. 13. *Professor Sinclair—photograph.*

question was what part of the horse, the mane or the tail; I risked tail which was right and then in a typical Sinclair way he said "would it be better to come from a horse or a mare?"—to which of course I had no answer. At the end of the class he called me over and asked me to consider the different methods that the two animals had in passing their water and that I could report next day—which I did not do. Many students got tired of this folk lore type of surgery feeling at times that it was a sort of pose—a great contrast to Gordon. It was all very unnecessary as he was the pioneer of modern abdominal surgery. Many of his operations are too technical to recount in a short lecture of this sort.

The professor of surgery was entitled to have an assistant who was paid by the university the princely sum of £200 per year. In Sinclair's time the late Mr. H. P. Malcolm held this post and as Professor Sinclair did not like fractures it was Harry Malcolm's duty to give a university lecture each Friday covering the whole field of fractures. Harry—debonair, perhaps somewhat lazy, was the most sought after bachelor surgeon in Belfast at that time. A hospital alphabet compiled by Hugh G. Calwell, a medical student in the 1920's, summed him up very well—"M is for Malcolm the elegant Harry, so eager to work but so willing to tarry".

I think in retrospect that Sinclair did not get enough recognition for his work. He should have had an honorary degree from his own university or indeed further honours for his seventeen years of political service. He is commemorated by the Sinclair medal which was founded for competition among the members of the surgery class. His portrait in oils was painted by George Harcourt in 1931 and presented to the university by his students and friends (Figure 14). The students were very courteous throughout Sinclair's lectures; I never saw any rowdyism. On one occasion he entered the room to find no one there so he went out only to be recalled to find every student in his seat. They had all hidden behind the high benches and were quite invisible—indeed a harmless prank. This was in marked contrast to what was happening to some other lecturers. I remember when a donkey and cart was brought into a certain class (Figure 15). The lecturer took the cart to push it through the door—he did not realise that we had spent half an hour or more taking off the wheels, bringing the cart in sideways, re-assembling it and setting the donkey into the shafts. Professor Sir John Byers for a time used to send up his chauffeur some time before the lecture with a bag containing some interesting organ that he had removed earlier that day rather like a fisherman showing off his morning catch. He hoped with this to interest and illustrate his talk to the students. When he found that the specimen was often removed and all the bag contained was perhaps an old pair of football boots or a bottle of Guinness he brought the bag into the class himself (Figure 16).

In 1922 the Association of Surgeons of Gt. Britain and Ireland—quite a young body formed out of the 1914–1918 war—decided as its third visit to come to Belfast. It had already met in London and Edinburgh and now was due to come to Belfast. It shows the high regard that there was at that time for the Belfast School. A. B. Mitchell had been chosen to be president—he was better known, more flamboyant and perhaps a better mixer than Thomas Sinclair who should have been by virtue

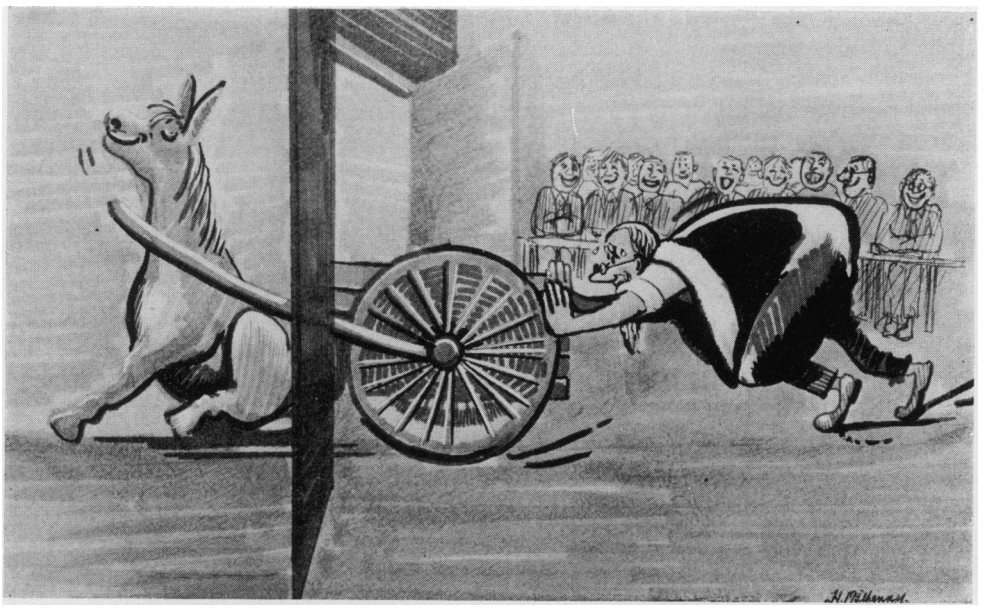

FIG. 15. *Dr. V. G. L. Fielden tryingto do the impossible.*

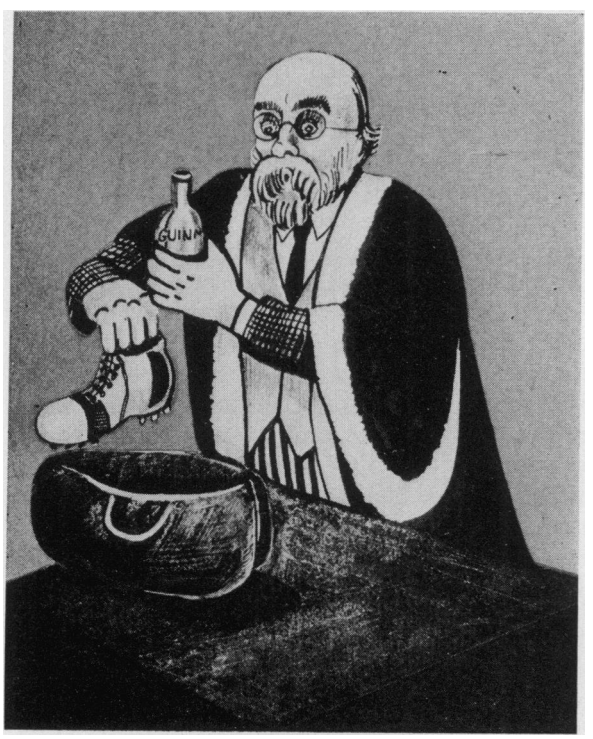

FIG. 16. *Sir John Byers—"Someone has changed the surgical specimen".*

of the position he held the right man for the job. However, as it happened this meeting never took place. It was postponed "on account of the unsettled state of Belfast"—sadly we can say the same today, 53 years later. The postponed meeting took place in 1931 with Professor Andrew Fullerton as president. This meeting was an outstanding success. I always felt that Sinclair did not make enough of overseas contracts. He did not realise that surgery was now international and not parochial; the opposite must be said of his successor because Andrew Fullerton was probably better known and more highly valued in England and America than in his own Ulster. A short family tree of the Sinclairs shows how much this family have given to Ulster as professors, industrialists, soldiers and politicians as well as medical consultants (Figure 17).

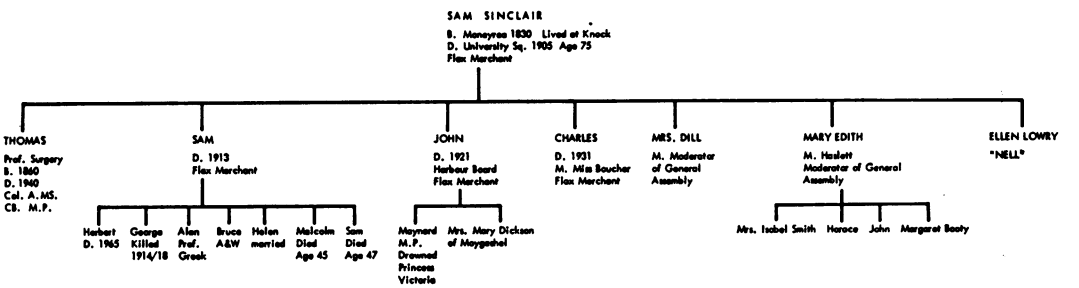

FIG. 17. *The Sinclair family tree.*

Professor Sinclair was President of this society in the session 1895–1896.

PROFESSOR FULLERTON

In 1923 when the Chair of Surgery became vacant it was just over four years after World War I. The young men who had come back were not yet equipped for the position and so an established surgeon had to be elected. It must be remembered also that the salary for this Chair—it was a part-time post—was in the region of £233 per annum. Anyone applying for the Chair must have had already a large practice and an adequate income, since to fill the post honourably he was likely to lose money if doing it properly. One young man did apply but the two really serious candidates for the Chair were S. T. Irwin and Andrew Fullerton. Irwin would have been the students' choice as he was an excellent teacher and had been giving special coaching classes for years. Fullerton on the other hand had come back from World War I much decorated and with almost an international reputation, having made so many valuable contacts while in France with the English, French and American surgeons. The Queen's Senate in its wisdom appointed Fullerton—it had to take into consideration the fact that he was then 55 years of age and had at most only ten years to offer, but they had to assume and hope that he was not a man who had reached his peak and was over the hill. In retrospect their choice was the correct one. Andy Fullerton in those next ten years became President of the Royal College of Surgeons in Ireland—the first ever to be chosen from Ulster since the college was founded in 1784. He was made an Honorary

Fellow of the American College of Surgeons—the first from Ulster, and he was elected President of the Association of Surgeons of Great Britain and Ireland when it made its first and postponed visit to Belfast in 1931.

During his ten years in the Chair Belfast was visited by many surgeons of world fame like the Mayo brothers, and even in his last years he was keeping up his research into urological problems and had several papers lined up to work upon after he retired but these were never completed. He left an incredible selection of mounted kidney and bladder stones all fully analysed and documented as well as the detailed results of some 3,500 cystoscopies.

Andrew Fullerton was the third youngest son of Rev. Alex. Fullerton, Methodist Minister of Dalkey, Co. Dublin, and was born in 1867 in Cavan (Figure 18). In his early life, because of his father's peripatetic profession his education must have been somewhat irregular, but his final school was Lurgan College and it was from there that he entered Queen's College in 1885. He qualified from the R.U.I. in 1891 with First-Class Honours, Gold Medals and Exhibitions (Figure 19). It will be seen from the family tree that his brothers all held very important positions. There was always on his mantlepiece a photograph of one of his brothers—this brother had joined the IMS where he had done some remarkable work in the eradication of plague in India. For this work he was rewarded with the Kaiser-1-Hind medal a much valued decoration; sadly later this same brother pricked his finger while doing a difficult operation, got septicaemia and died. The same brother it will be seen left two sons both of whom reached high rank in different regiments in the Indian Army.

Having qualified in Dublin and before settling in Belfast Andrew Fullerton spent two and a half years in England in two different hospitals in Kent. As soon as he had obtained the diploma of F.R.C.S.I. he returned to Belfast but he had to do a spell of general practice to make some money before he could get his foot on the first rung of the surgical ladder. His progress was slow, his manner was against him, and he was sharp of speech which gave the impression of him being snappy. This was not really so; he could be extremely patient and could be very sensitive. I remember assisting him at one operation to remove the tongue because of advanced cancer; it was indeed a hopeless case. We both had to work from below the table with the patient's face downwards because there was then no way of blocking off the windpipe and no blood must be allowed to flow back into the lungs. The patient died on the table. Fullerton was so upset that I had to drive him home, and he went straight to bed. This is a very different picture from the one he gave to the students and to the public. I remember the deep emotion that he suffered on the death of his first wife. She was undergoing an abdominal operation in a nursing home and he was waiting down below. He was called up to the theatre expecting to be told that the operation was over; instead it was to be shown the open wound and to have pointed out to him that nothing could be done. To me this was an unforgiveable act for any surgeon to do to a colleague.

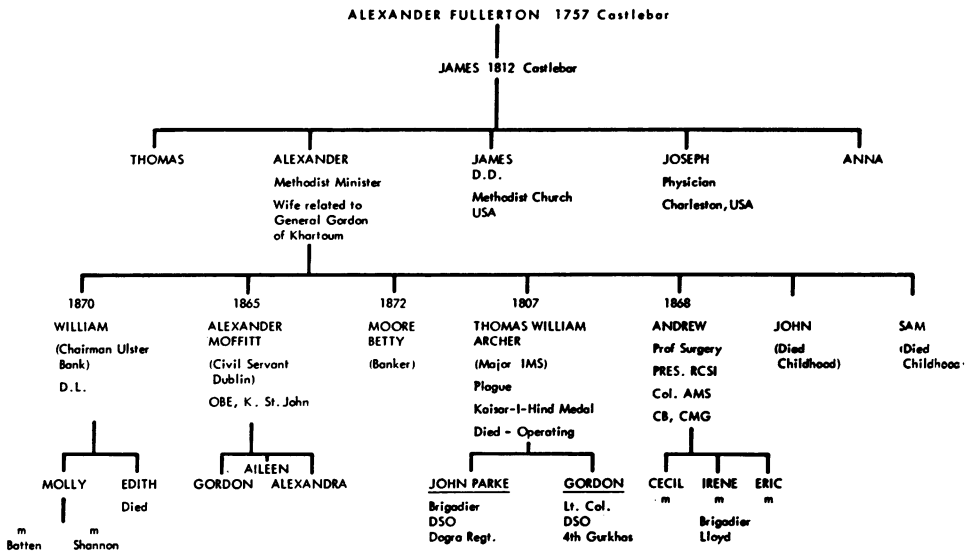

FIG. 18. *The Fullerton family tree.* (The date for Thomas William Archer should be 1867).

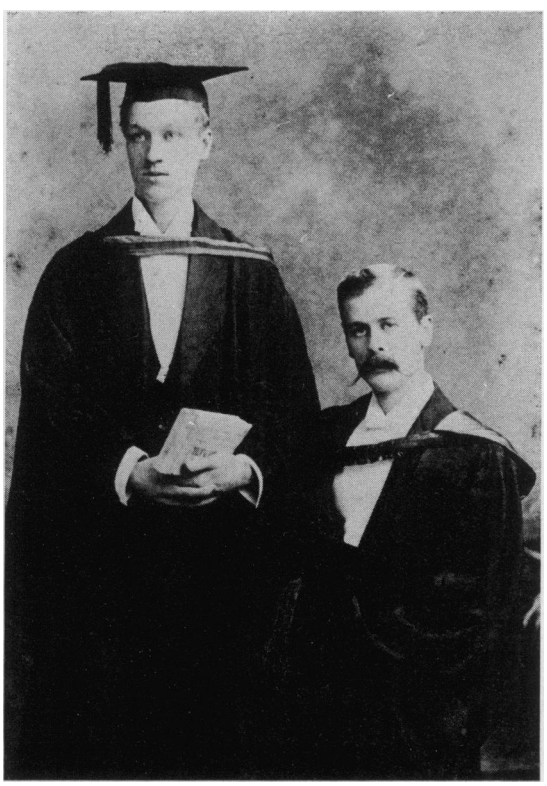

FIG. 19. *Dr. Andrew Fullerton and his brother on Graduation Day.*

He never had a large practice and on his death left a very modest amount in his will. Research permeated all that he did, he was always trying new methods. In those days research, it must be remembered, was a one man show. At one time he felt that patients died if allowed to be under an anaesthetic too long and so he developed an operation for the removal of the prostate which he could do at very great speed. I have on occasions stood by with a stop watch. On one occasion when he was particularly rapid and I was able to record the time as 57 seconds he at once remarked with a wry smile "Fraser, where did we lose time today?"

A man must be judged by what facilities are available; blood transfusion was virtually non-existent and new anaesthetics and antibiotics were not yet available. He was one of the early pioneers with the new electric cystoscope which many of his colleagues still thought was just a new and interesting toy. Edison had just brought in the new cold lamp so one no longer ran the risk of burning the patient with the hot bulb. On a child's rubber ball about the size of a bladder he would practise for hours at home, having passed the cystoscope through a small hole into the interior of the ball, until he could see every corner of its lining clearly. He had a large collection of cystoscopes all bought by himself, and these he brought each day to hospital to use on his hospital patients. He quite rightly asked the hospital to replace the bulbs which were easily blown and were very expensive. On one occasion he was trying to impress one of his cynical colleagues with the great value of this new instrument. He passed it into the bladder and began to look for an artery or vein to show his colleague. Finally he saw one and said "Ah, I see a vessel on the right" to which his friend at once replied "I suppose I am now expected to say "Ship Ahoy". The hospital was not fully equipped then with a diathermy apparatus; he had one at home which he also brought each day to hospital when there was a case likely to require it, such as a tumour of the bladder. This large, so called portable, apparatus had to be carried from his car to the ward either in one's arms or on a trolley. My pupil at the time, and now a retired consultant, who often had to carry it suggested that the machine should not be called portable but rather shiftable. Finally each day he brought back two, three or four bound volumes of hospital notes—he kept at home a duplicate copy of all his hospital cases of urological interest. These were illustrated by his own personal sketches; this enabled him to have the material at home available to write his various papers. On his death he had 77 monographs to his credit—a copy of these he left to the Ulster Medical Society library. One must remember that in those days a paper was usually a one man effort with acknowledgments in the appendix; today there may be six or eight authors with apparently everyone taking part—at times it is difficult to know who the main author is.

He was a fast and neat operator; he took great care, often preferring his fingers to instruments but his cases often did not do as well as they should have done. He had a tendency to be always trying new methods—not all of these were advances and often they were too experimental. Although not interested in fractures he did as a younger man write a short book on fractures of the forearm, and, as I said before, he felt that his splint was able to correct deformity which the Gordon splint was unable to do (Figure 20). Unfortunately his little light wooden splint never

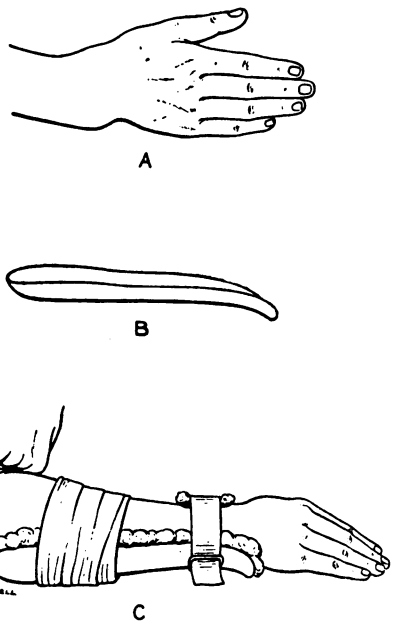

FIG. 20. *The Fullerton splint for Colles' fracture. In A the marked displacement to the radial side is show, in B the Fullerton splint and in C the splint as applied.*

won any popular appeal. Although always a general surgeon—as indeed a professor should be—he tended in later years to see mostly cases of urological interest. He did a great deal of work at home in his small consulting room; how the thick red carpet stood up to so much soiling with water, urine etc. I never understood. It was quite a sight to see him holding the cystoscope in position in the patient's bladder with one hand and answering the telephone with the other. He must have wondered at times whether it was easier to pull the patient over to the 'phone or the 'phone over to the patient. On occasions I have been asked to go to help but he usually had a nurse from a nearby nursing home who came in for two hours each afternoon.

The professor of surgery, as I said earlier, was entitled by the university to have an assistant. I held this appointment for a few years and the salary was still £200 per year. I felt that part of the job was rather like being a verger or a sexton; my function was to see the great man into the lecture room and close the door, and after that I got back to my consulting rooms in University Square. The only difference from being a verger, as far as I could see, was that the latter was never expected to give the sermon. I on the other hand had always to go with the possible lecture in my pocket lest the professor should be detained or should not turn up. Of course one had to deputize for him on holiday as well as helping to organise the examinations.

One thing I always admired about Andrew Fullerton was his honesty. If things went wrong he always took full blame. He never pandered to popular appeal but he did like praise. He could have had a larger practice with just a little more tact. He could be foolish also—I remember him telling a doctor with a very large prac-

tice not to call him Dr. Fullerton, he was Mr. Fullerton. That doctor never sent him another case.

From the time he got his FRCS in Dublin he kept up a close contact with the Irish College of Surgeons. He had been born in the South of Ireland and still had some relatives there including an older brother who now had an important position in the Civil Service in Dublin. It was therefore no surprise when in 1926 he was

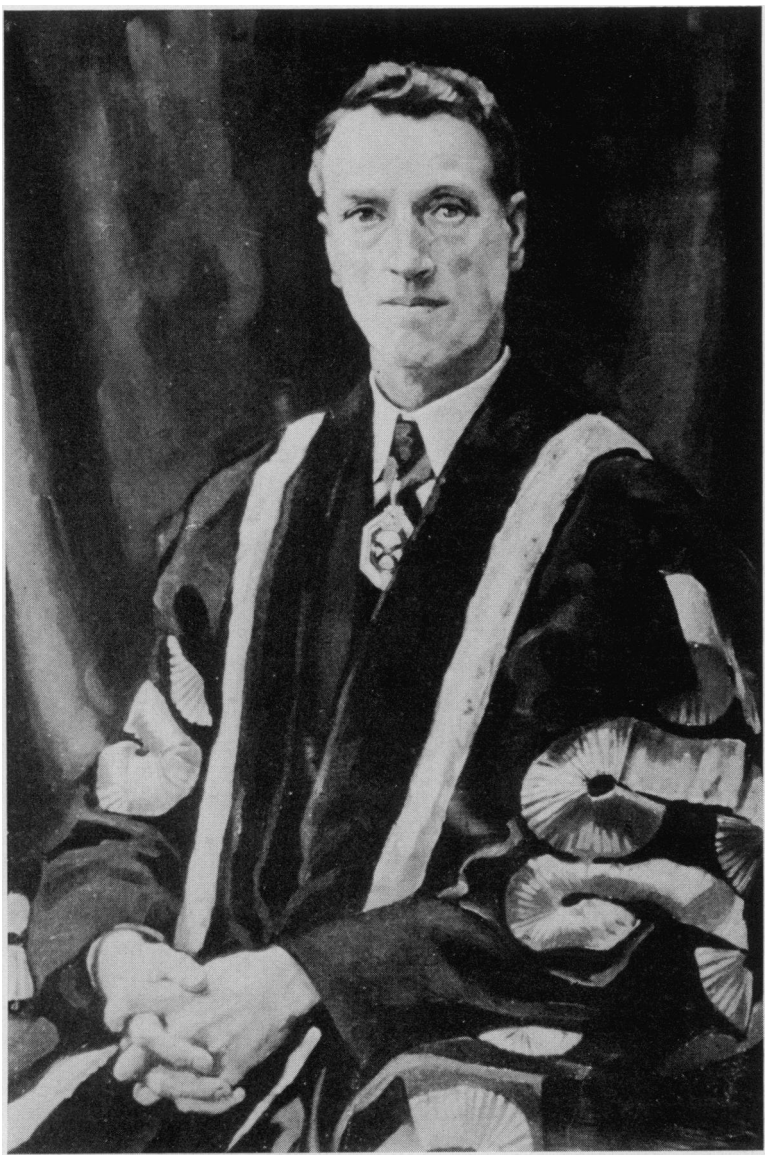

FIG. 21. *Professor Andrew Fullerton, President of the Royal College of Surgeons in Ireland. Painted by William Conor.*

elected President of the Royal College of Surgeons (Figure 21). He filled this position with great success, the first Ulster man to be President. Andrew Fullerton on a meagre income was a very generous man and each year took many of his colleagues in Belfast to the famous annual Charter Day Dinner in the College. He was such a success as president that when his successor died while still in office Andrew Fullerton was chosen unanimously to fill the vacancy. Few people have filled the presidential chair twice.

It was just by coincidence that in 1923 both the Chair of Medicine and Surgery in Belfast fell vacant at the same time and so Professor W. W. D. Thomson and Professor Fullerton were both appointed on the same day. It gave the students a chance to celebrate (Figure 22). The new incumbents were both forced to wear pyjamas over their suits, drink some champagne and be anointed with oil over a laurel crown. I think they had been warned not to wear their best suits. W. W. D.

FIG. 22. *Students' Rag. Installation of Professor Fullerton and Professor W. W. D. Thomson.*

Thompson many years later was knighted and it was a bitter blow to Andy Fullerton that he was not similarly recognised; in fact to be President of the Royal College of Surgeons in Ireland prior to 1922 automatically carried this honour. It is popularly believed that this did not happen in Fullerton's case because at a certain dinner in Dublin in a speech he had said among other things "in the field of surgery there should be no border". In the Northern press next day there appeared the notice "famous Belfast surgeon says there should be no border", leaving out the vital first part of the sentence. It is said that Lord Craigavon got out his 'blue

pencil' at once. Fullerton's multiple public appointments and his position in the world of surgery certainly warranted recognition. He made one or more trips to Canada and later was elected an Honorary Fellow of the American College of Surgeons, the first Ulsterman to be so recognised. After the ceremony Willie Mayo gave him his own personal gown and later when the Mayo Brothers came to Dublin and Belfast some years later, each to get the Honorary FRCS Ireland Willie returned to America wearing Fullerton's gown—rather like what now goes on at rugby football matches. Andrew Fullerton after his visit to the Mayo clinic decided that we must all wear white trousers and shirts in the operating theatre. He was the first to bring this new idea to Belfast. On the first day in which he appeared on the corridor thus attired the students kept calling after him "off to play tennis, Sir?" In a Hospital Alphabet in the 1920s, it said "A is for Andy of Cystoscope Fame, In far Minnesota they've heard of his name". When the Association of Surgeons finally paid its already mentioned visit to Belfast in 1931 Andrew Fullerton was the obvious choice for President. In those days all the surgeons were expected to put on an operating list to show their expertise. Andy, expert in removing the kidney. decided that this would be his party piece and as his registrar at the time it was my duty to assist. Unfortunately the case had not been fully investigated; it turned out to be a horse shoe kidney with both kidneys joined together at the lower end. We had a whispered conversation and decided we could do what had now become a difficult and risky job with less embarrassment if the audience were to fade away gently on to the corridor. A hint was made that they might like to have a cigarette, and being an understanding bunch of people—possibly something similar had happened to them—they packed their tents like the Arabs. Although this was upsetting, in fairness one must mention that certain x-ray tests now available were not in existence then.

On a Saturday morning Andy always arrived in plus fours to do a hasty ward round before he was driven to the County Down Railway Station to get the 12 o'clock train for Newcastle, Co. Down. With a game of bridge on the train, lunch at the club house and eighteen holes of golf it was for him indeed a very different atmosphere compared with the tight regime in which he lived for the rest of the week. His bridge was more gallant than scientific—I played with him on many occasions, and he was an equally good loser and winner. He enjoyed his golf and was indeed a very different man on the golf links. Few golf prizes came his way but he was immensely proud to be elected Captain of the Royal Co. Down Golf Club, a prestige position in 1922–23 (Figure 23). It was indeed a very happy coincidence that the Prince of Wales—later Edward VIII—should pay a visit to Ulster that year, and it was naturally the captain's privilege to partner the Prince on that occasion.

He occasionally came to hospital on Sunday on his way home from church. He now had joined the Church of Ireland and attended St. George's; I do not know when and why this conversion took place from Methodism.

Andrew Fullerton never looked robust; he suffered from indigestion and blamed a great deal of this on Lord Moynihan, the then Sir Berkeley, who had operated

FIG. 23. 1923—*Andrew Fullerton Captain Royal County Down Golf Club, entertaining H.R.H. Prince of Wales (Edward VIII).*

on him many years before doing a short circuit for a suspected duodenal ulcer. This operation never gave him much comfort. He liked a party and a glass of wine, and one felt that the short circuit allowed the wine perhaps to have more effect than it should have done. In all he was a temperate man but enjoyed the social occasion. On one such occasion after a public dinner he was asked to go and see a rather difficult old lady. Having examined her she said "Mr. Fullerton, do I smell drink?" He said at once "Why yes indeed, would you rather that I smelt of food?".

One of the great men to visit Belfast was Hugh Hampton Young of Baltimore who had perfected his own method of removal of the prostate from below by the perineal approach (Figure 24). To me it seemed the obvious way of making an easy operation difficult and dangerous, but he was a man of world-wide fame with an international reputation. He did two of his own operations in Belfast—both patients died. Fullerton tried a few further cases later using the same technique and we were all very glad indeed when he went back later to the old method.

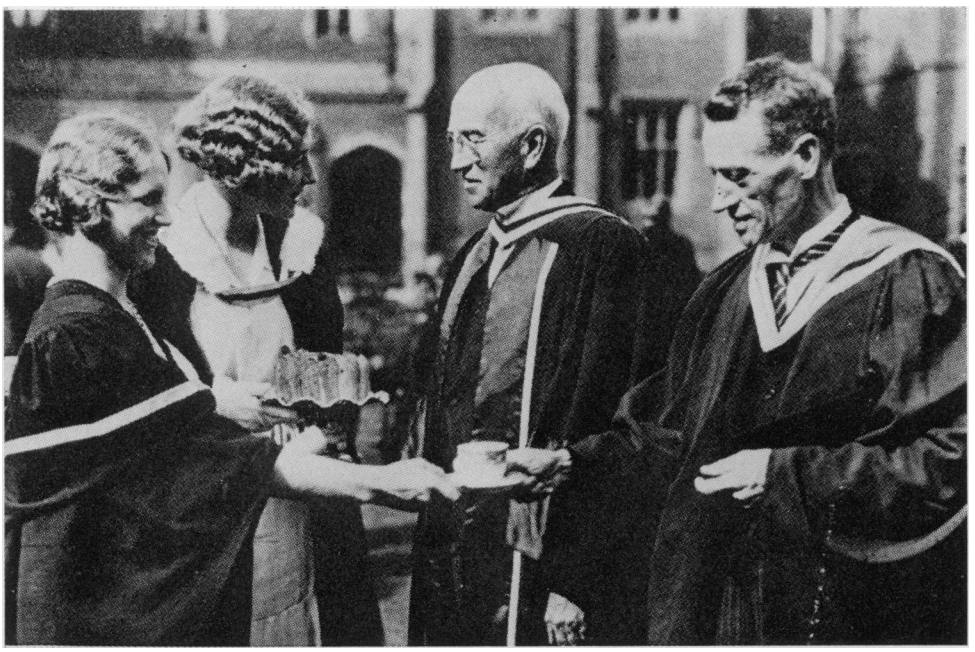

FIG. 24. *Garden Party at Riddell Hall. Professor Fullerton and Hugh Hampton Young of Baltimore after an Honorary Degree Ceremony.*

In his last year Andy himself developed prostate trouble. He went over to London to have a new technique performed. This was being done with great success by Terence Millin—"Transurethral resection". He came back but never regained his old strength and in fact he seemed to get weaker. We all thought it was just a slow recovery from the London operation, but in fact an unsuspected malignant growth was then just appearing.

Just after he retired it could be seen that Andy Fullerton was losing his energy and drive, and it was no surprise when an acute illness supervened, and an immediate operation was necessary. This was carried out by two of his Belfast colleagues but he asked one of his best friends from England Sir Geoffrey Jefferson from Manchester to come over. He insisted that under no circumstances would he accept a colostomy. He died fortunately a few hours later.

At 8.30 a.m. on May 22, 1934 when I was at breakfast a car came up to my home; I recognised Neill, Professor Fullerton's chauffeur. In his hands he carried a few books, a few cystoscopes, and draped over them all was the professor's own gown of the Royal College of Surgeons in Ireland. Neill said the professor had died at 3.30 a.m. and his last wish was that certain presents should be given to his colleagues at once. This gown like its master had seen much service but I have kept it ever since and worn it on all suitable occasions in pride and in happy remembrance of a great man, a great teacher, and a close personal friend (Figure 25).

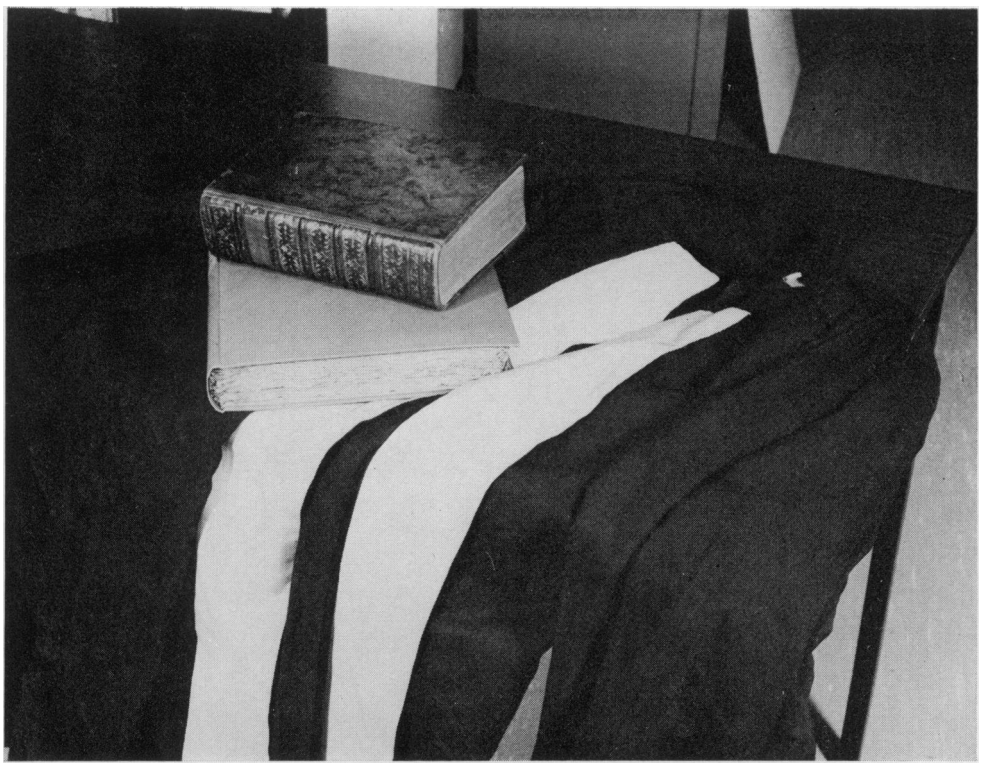

FIG. 25. *The gown and the books.*

When World War I broke out each Royal College of Surgeons was asked to nominate a consultant who would be willing to join the Army Medical Service. The Irish College suggested Andrew Fullerton, and he was appointed at once consultant to the army with the rank of full colonel (Figure 26). He was in France from 1915–1919, stationed at the Base Hospital near the coast. This was a hospital complex of British/American (Harvard and Yale) and French hospitals. It was a most stimulating centre for surgery and research. The cream of American surgeons and scientists were there—Crile, Harvey Cushing and others as well as the senior London consultants such as Sir George Makins. This was the turning point in Fullerton's career; he got unlimited scope and facilities and was able to make use of conditions that he had never had before. At first it was chiefly general surgery, the study of infection and the problem of surgical shock and many other general problems which came his way, but soon he became the recognised master in genito-urinary surgery. He produced some very valuable original work treating men with a paralysed bladder following injury to the spine, but gunshot wounds to kidney, ureter and bladder were his main forte. He wrote many papers on this subject and was also called to the forward area for genito-urinary injuries. At the end of the war he was responsible for writing the section on gunshot wounds of kidney, ureter and bladder in the History of War (Medical Service).

When in France at a party in the Officers' Mess Colonel Fullerton's party piece was to stand on his head and drink a bottle of beer, naturally uphill. Although this may at the time have been an item of great physiological interest yet in his day to day life afterwards it proved to be a skill of little practical value. This was reported to me by Alfred Webb Johnston, later Lord Webb Johnston, who was one of his brother officers.

FIG. 26. *Col. Andrew Fullerton*—1915.

FIG. 27. *Andrew Fullerton as President of the Ulster Medical Society*—1919.

In 1916 he was appointed C.M.G. and in 1919 C.B. as well as being mentioned three times in despatches during these valuable three and a half years. In 1919 when he returned to Belfast he was at once made President of the Ulster Medical Society (Figure 27). As one might expect his presidential address was on Shock and Haemorrhage, a paper based on experience. He made lifelong friends when in France and in the ensuing years we in Belfast were fortunate to be visited by people such as Percy Sergeant, Sir William Arbuthnot Lane, Ernest Miles and Tudor Edwards, all of whom were willing to operate and show us the latest advances in brain surgery, chest surgery, rectal surgery, as well as the 'no touch

technique in bone plating'. Close to the base hospital where he worked there was a fracture centre at Wimereux where H. P. Malcolm was working with Maurice Sinclair, and so when Andrew Fullerton returned to the Royal Victoria Hospital after the war a certain number of beds especially for fractured femurs were reserved in his ward under the care of Harry Malcolm. I was his dresser when he came back and had to carry out the techniques that he brought back with him. One of these, the Carrel-Dakin continuous irrigation of compound fractures, was a technique which it was quite impossible to carry out successfully.

From France Fullerton brought back to Belfast two people who gave wonderful service to the Royal Victoria Hospital. One was a Queen Alexandra Nursing Sister, Miss Mussen, who became Matron of the Royal (1922–1945). She brought a new look to the corridor where her predecessor of stately appearance seemed to us all a constant reminder of Florence Nightingale (Miss Bostock, 1901–1921). The other was R. Leeman. Andy had realised his value as a radiological technician in France and had suggested he came to Belfast. No one has served Ulster better or longer than Ralph Leeman.

In World War I blood transfusion was a question of trial and error. Four methods were tried, the first although rejected ultimately became when modified the basis of our present blood transfusion technique. One of the others was the Bazett-Fullerton method. Captain Bazett from Oxford and Andy Fullerton suggested a direct transfusion method in which a needle was put into the donor's artery, another needle into the recipient's vein. The two needles were joined by a short piece of rubber tubing with a small piece of glass to act as a viewing chamber to see that the blood was flowing. A successful series of cases treated this way was written up in the Lancet in 1917. Naturally of course there was no way of measuring the amount given; I suppose one went on until the patient looked better and the donor looked worse.

Andy always looked back with great pleasure to his army life. He was one of the founders of the University Services Club; his lectures were often illustrated by incidents from his war experience, and to the end he was very pleased when people called him Colonel. In his early life his papers were often on general subjects—fractures, injuries of the knee joint as well as the many surgical conditions of childhood. He enjoyed greatly his attachment to the Belfast Hospital for Sick Children, in fact he only resigned from it when he became deeply involved with university teaching.

In addition to the Fullerton splint for fractures of the wrist he also invented a special pair of forceps still in daily use to hold up the ureter. He was one of the first to put an inflated bag into the bladder to stop bleeding after removal of the prostate. Many of his inventions have not stood the test of time, but he was interesting, stimulating and always had the entire loyalty of his staff, medical and nursing, and they would have done anything for him. He will be best remembered as a small figure, barely visible under a large black sheet with his eye at the end of the cystoscope. As he emerged after half an hour with his hair tousled, his face wet (we hope with sweat)—if he had been able to show that one kidney was able

to produce one teaspoonful of urine more than the other kidney in the same time—he went home as satisfied as a cricketer who had made a century. It was his hobby horse to show that the earliest sign of disease in a kidney was when it produced more urine of a weaker quality. At that time this test gave invaluable information before the modern x-ray excretory tests were invented which have made the problem today so much easier. His patience in pioneering work of this sort was remarkable and not at all in keeping with his quick and brusque manner of speech. It is sad that this man, a pioneer in urological surgery with an original mind, an inventive brain and endless energy as well as being a meticulously careful recorder of facts, never received the recognition that he deserved. There is no medal or lecture to his memory nor was he recognised by his own university or by the state. I suppose for him the words of William Blake would be particularly apt "Energy is an eternal delight".

Conclusion

I have tried to give a fair appraisal of the value of these three great men who in my opinion were the foundation stones upon which the present surgical school now stands. It was Cromwell who said "paint me warts and all" and if I have painted in the warts it is merely to accentuate the underlying greatness of the man. All had something different to offer and perhaps they each had a different method of approach. Each was the leader at a different stage of medical progress and the school was fortunate to have men of this type as the pioneers. I hope someone will in time put on paper the work of their successors; men who have carried and are carrying on the torch that they lit.

I have been fortunate in being able to contact members and distant relatives of all three families and I am most grateful for their interest and the help that they have so willingly given to me.